

AMENDMENT

U.S. Appln. No. 10/768,094

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1. (Currently Amended) A method for ~~the~~ treatment of a malignant tumor and prevention or treatment of Graft Versus Host Disease (GVHD) induced by donor lymphocyte infusion in a patient, the method comprising~~which comprises:~~

(A) performing donor lymphocyte~~leukocyte~~ infusion (DLI) in a patient ~~requiring such treatment and~~ having a malignant tumor;

(B) then performing:

(i) radiation treatment (irradiation),

(ii) infusion of lymphocytes derived from the host or derived from a third party having the identical in-HLA type as the host (HLI), and

(iii) intra bone marrow-bone marrow transplantation (IBM-BMT) using bone marrow cells derived from the host or derived from a third party having the identical in-HLA type as the host.

Claim 2. (Cancelled).

Claim 3. (Currently Amended) The method ~~offer the treatment of malignant tumor as defined in Claim 1, wherein a first~~further radiation treatment is performed prior to the donor lymphocyte infusion.

AMENDMENT

U.S. Appln. No. 10/768,094

Claim 4. (Currently Amended) The method ~~offer~~ the treatment of malignant tumor as defined in Claim 1, wherein the ~~DLI~~ donor lymphocyte infusion is performed ~~by~~ in the manner of intravenous administration of an effective amount of donor-derived peripheral blood mononuclear cells.

Claim 5. (Currently Amended) The method ~~offer~~ the treatment of malignant tumor as defined in Claim 1, wherein ~~said~~ the radiation treatment following the donor lymphocyte infusion is performed ~~by~~ in the manner of total body irradiation at a dose of 3-4 Gy.

Claim 6. (Currently Amended) The method ~~offer~~ the treatment of malignant tumor as defined in Claim 1, wherein the ~~HLI~~ infusion of lymphocytes derived from the host or a third party identical in HLA type to the host is performed ~~by~~ in the manner of intravenous administration of an effective amount of peripheral blood mononuclear cells derived from the host or derived from a third party having the identical in HLA type ~~as~~ the host.

Claim 7. (Currently Amended) The method ~~offer~~ the treatment of malignant tumor as defined in Claim 1, wherein the bone marrow cells are whole bone marrow cells derived from the host or derived from a third party having the identical in HLA type ~~as~~ the host.

Claim 8. (Currently Amended) The method ~~offer~~ the treatment of malignant tumor as defined in Claim 7, wherein the ~~bone marrow cells~~ are whole bone marrow cells are obtained by inserting a bone marrow puncture needle into one end of a long bone of the host or of the a third party identical in HLA type to

AMENDMENT

U.S. Appln. No. 10/768,094

~~the host~~, causing an irrigating fluid to flow via the needle through the medullary cavity, and recovering the irrigating fluid containing bone marrow cells from a perforation provided at the other end of the long bone.

Claim 9. (Currently Amended) The method ~~offer the treatment of malignant tumor as defined in Claim 1, wherein the IBM-BMT intra bone marrow bone marrow transplantation is performed by in the manner of~~ administration, into a long bone, of an effective amount of whole bone marrow cells derived from the host or ~~thea~~ a third party identical in HLA type to the host.

Claim 10. (Currently Amended) A method for ~~the treatment of a malignant tumor and prevention or treatment of Graft Versus Host Disease (GVHD) induced by donor lymphocyte infusion in a patient, the method comprising~~ which comprises:

(A) performing donor lymphocyte infusion (DLI) or graft versus tumor reaction based tumor treatment in a patient having a malignant tumor to be treated; and

(B) then performing:

(i) radiation treatment (irradiation), and

(ii) intravenous administration of peripheral blood stem cells derived from the host or derived from a third party having the identical in HLA type to the host for the prevention and treatment of the graft versus host disease caused by said donor lymphocyte infusion.

AMENDMENT

U.S. Appln. No. 10/768,094

Claim 11. (Currently Amended) The method ~~offer—the~~
~~treatment of malignant tumor as defined in~~ Claim 1, wherein the
malignant tumor is selected from the group consisting of~~among~~
leukemia, malignant lymphoma, multiple myeloma, sarcoma,
melanoma, brain tumor, stomach cancer, tongue cancer, esophageal
carcinoma, colorectal cancer, liver cancer, gallbladder
carcinoma, pancreatic carcinoma, renal carcinoma, bladder
cancer, nasopharyngeal cancer, laryngeal cancer, skin cancer,
mammary cancer, testicular cancer, ovarian cancer, uterus
carcinoma, and lung cancer.

Claim 12. (Currently Amended) A pharmacological composition
for use in the malignant tumor treatment method as defined in
Claim 1 which comprises:

- (1) a composition containing donor-derived peripheral
blood mononuclear cells,
- (2) a composition containing peripheral blood
mononuclear cells derived from the host or
derived from the a third party having the
identical ~~in~~ HLA type as the host, and
- (3) a composition containing whole bone marrow cells
derived from the host or derived from the a third
party having the identical in HLA type as the
host.

Claim 13. (Currently Amended) A method ~~for—the~~ prevention
~~or~~ and treatment of a the graft versus host disease induced by
donor lymphocyte infusion in a patient, the method
comprising~~which comprises~~ performing, in said patient ~~to be~~

AMENDMENT

U.S. Appln. No. 10/768,094

~~treated for the prevention and treatment of the graft versus host disease,:~~

- (A) radiation treatment (irradiation),
- (B) infusion of lymphocytes derived from the host or derived from a third party having the identical in-HLA type ~~as~~ the host, and
- (C) intra bone marrow-bone marrow transplantation using bone marrow cells derived from the host or derived from a third party having the identical in-HLA type ~~as~~ the host.

Claim 14. (Currently Amended) A pharmacological composition for use in the method for the prevention and treatment of the graft versus host disease induced by donor lymphocyte infusion as defined in Claim 13 which comprises:

- (1) a composition containing peripheral blood mononuclear cells derived from the host or derived from thea third party having the identical-in HLA type ~~as~~ the host, and
- (2) a composition containing whole bone marrow cells derived from the host or derived from thea third party having the identical in-HLA type ~~as~~ the host.